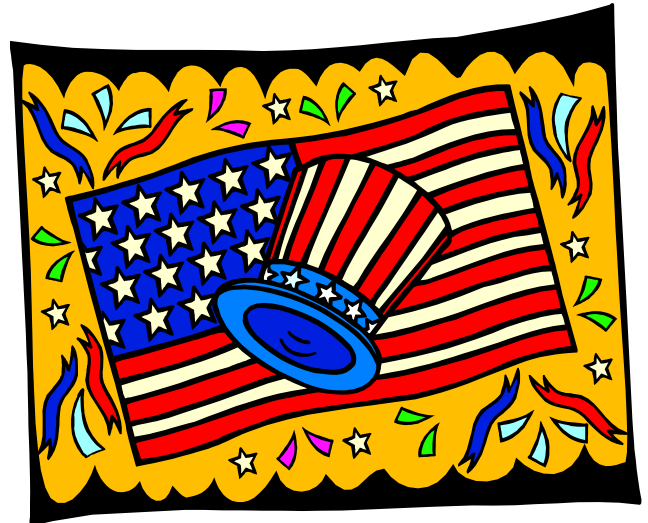


Wright-Patterson AFB, Ohio

**Environmental,
Safety and
Occupational
Health (ESOH)
Newsletter**

July 2001



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Boating Safety

SSgt Kevin Smith
AFRL/PROE Ground Safety



Well, summer is officially here. The weather is hot, the kids are out of school, and your boat is ready for action. This is the prime time of year for people to head out to the local lakes for some fun in the sun. Whether you are going fishing, skiing, swimming, or just floating down stream and soaking up some rays, operating a boat is a big responsibility that should not be taken lightly. Will your day on the water be remembered as the best day of the summer or the worst?

Before you leave for the lake, there are a few things you need to do to ensure that things run smoothly when you get there. The first thing you should do is check the weather forecast. Make sure there are no storms in the area that could produce high winds or lightning. Next, take a good look at your boat while it is on the trailer. Visually inspect the boat for damage from any previous use. Ensure the trailer is in good condition to include the tires and lights. Don't forget about the spare tire also. Make sure you have enough Coast Guard approved life jackets for everyone that will be in your boat and that they are in good condition. And finally, check all your safety equipment to include a fire extinguisher, radio, lights for operating at night, and a whistle or horn to signal if you need help.

After you arrive at the lake, there are a few "rules of the road" to keep in mind while on the water. The most important thing is to be aware of your surroundings. Know where other boats are and where you are. Keep an eye out for fallen skiers and people that are swimming. If you are going to swim, make sure you are out of the normal boating areas to avoid being hit by other boats, never swim alone, don't dive into unfamiliar water, and wear a life jacket. If you are going to ski, remember it takes at least three people: the boat operator whose only job is to drive the boat, a spotter whose only job is to watch the skier and let the operator know when he or she has fallen, and the skier whose only job is to wear a life jacket and hold on for dear life. Finally, bring sun block to prevent sunburn and always remember that alcohol and water don't mix. Alcohol is one of the leading causes of water related fatalities and it is also illegal to operate a boat while intoxicated.



With a little pre-planning and following a few simple safety "rules of the road", your day will be remembered as a good one. **Remember Operational Risk Management (ORM)! Weigh the benefits before accepting the risks!!!!** For more information, check with your Safety Office or the Ohio Department of Natural Resources

High Water Precautions

MSgt Larry Stulz
445 AW Ground Safety Specialist

You probably think you will never need to know about flooded roads or high water just because your house is not in a flood prone area. What if you are driving home and the road you always use has high water on it? Should you cross it?

In southwest Ohio, June 4, a mother and her twin 4-year-old daughters were killed when a SUV lost control on a wet highway, crossed a grass median and hit her vehicle head on. June 6, two teenage girls were crossing a 16-inch deep stream when they were swept away into a pond. Two adults tried to rescue them and also drowned. Local daily news reports have shown scores of vehicles abandoned in streets with high water.

Water weighs 62.4 pounds per cubic foot. In flooding situations, water typically flows at 6 to 12 mph. For each foot of moving water at those speeds, it can reach a force of 500 pounds per square foot. A 200-pound person can be swept away by 6 inches of moving water. Cars in high water become buoyant. They tend to float as a boat. For each foot of water a car is in, the car weighs 1,500 pounds less. A 3,000 pound car will be swept away in 2 feet of moving water.



Drivers tend to forget that while driving through high water, several major events happen. Water hitting rotating fans and belts in the engine compartment may short circuit electrical components. Wet brakes means the vehicle has no stopping ability. Water will enter exhaust systems and cause damage to components. Waves from passing vehicles can swamp other vehicles. Countless other factors like fallen electrical lines, hidden objects, or washed out roadways present other dangers.

Hydroplaning occurs when a vehicle's tires cannot channel water away fast enough from beneath a tire's surface. The tire literally begins to ride up on a wedge of water and loses contact with the road surface. Many factors affect hydroplaning but it usually occurs within the upper 30-mph range.

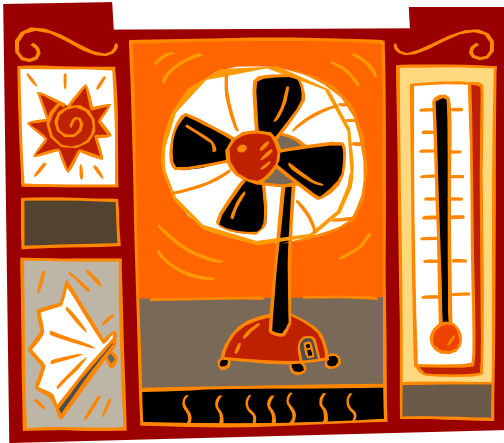
Dangers of driving in wet conditions: <http://www.smartmotorist.com/rai/rai.htm>

Flood and high water safety information: <http://www.ussartf.org/flooding.htm>

The photos shown were taken during the 9 Jun 01 flood in Houston, Texas

Recognizing and Preventing Heat Related Illnesses

Public Health Office
Wright-Patterson AFB



During the summer months, employers should be especially aware of the dangers associated with working in high-temperature environments. Heat and humidity combined with physical exertion can do more than just make employees uncomfortable—it can lead to a variety of heat-related illnesses that can debilitate employees. Heat illnesses are the result of elevated body temperatures due to an inability to dissipate the body's heat and/or a decreased fluid level. Always

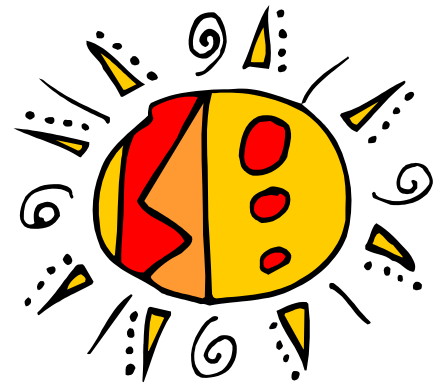
remember that mild heat illnesses have the potential of becoming severe life threatening emergencies if not treated properly.

Heat Cramps - Heat cramps are a form of muscle cramp brought on by exertion and insufficient salt.

Heat Cramps Treatment - Replace salt and fluid and stretch the muscle. Kneading and pounding the muscle is less effective than stretching and probably contributes to residual soreness.

Heat Exhaustion - The signs and symptoms of Heat Exhaustion are:

- Sweating
- Skin - Pale, clammy
- Pulse - Increased
- Respirations - Increased
- Temperature - normal or slightly elevated
- Urine Output - Decreased
- Patient feels weak, dizzy, thirsty, "sick," anxious
- Nausea and vomiting



Heat Exhaustion Treatment - Victims of Heat Exhaustion must be properly re-hydrated and must be very careful about resuming physical activity (it is best to see a physician before doing so). Have the person rest (lying down) in the shade. Replace fluid with a water/salt solution. Drink slowly; drinking too much too fast very often causes nausea and vomiting.

Evacuation usually is not necessary. Heat Exhaustion can become Heat Stroke if not properly treated. **A victim of Heat Exhaustion should be closely monitored to make sure that their temperature does not go above 103 deg F. If it does so, treat the person for Heat Stroke as described below.**

Heat Stroke - Hyperthermia

- Heat Stroke is one of the few life threatening medical emergencies. A victim can die within minutes if not properly treated.

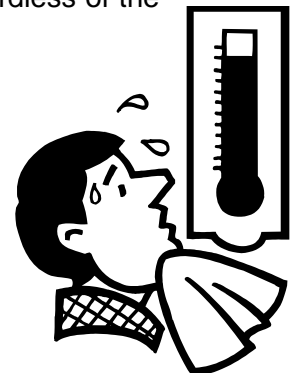
Signs & Symptoms of Heat Stroke

- The key to identifying Heat Stroke is **hot skin**. Some victims may have hot, dry skin, others may have hot, wet skin because they have just moved from Heat Exhaustion to Heat Stroke.
- Pale Skin
- Pulse Rate - increased
- Respiratory Rate - increased
- Urine Output - decreased
- Temperature - increased (may be over 105deg F)
- Skin - may be wet or dry, flushed
- Severe changes in mental status and motor/sensory changes, then the person may become comatose, possibility of seizures.
- Pupils - may be dilated and unresponsive to light



Heat Stroke Treatment

- **Efforts to reduce body temperature must begin immediately!** Move the patient (gently) to a cooler spot or shade the victim. Remove clothing. Pour water on the extremities and fan the person to increase air circulation and evaporation or cover the extremities with cool wet cloths and fan the patient. Immersion in cool (**not cold**) water is also useful. During cooling, the extremities should be massaged vigorously to help propel the cooled blood back into the core.
- After the temperature has been reduced to 102 deg F, active cooling should be reduced to avoid hypothermia (shivering produces more heat). The patient must be monitored closely to make sure that temperature does not begin to go up again.
- Volume replacement - the victim will probably need fluid regardless of the type of onset.
- Basic life support, CPR if needed.
- Afterwards there can be serious medical problems. **Prepare to evacuate your patient.**



Information was pulled from the CDC and OSHA web pages.



Commonly Asked Questions about Sport Drinks

There seems to be conflicting opinions on the use of salt tablets. When, if ever, are they appropriate for employee use?

A If the temperatures are extreme and the activity is intense, the use of a sport drink with sodium would be better than tablets. You need to have sodium because it helps the small intestine absorb water, getting it into the blood stream faster. However, salt tablets are highly concentrated doses of sodium that can interact with other medicines and health conditions and pose a health threat to employees if not administered by a health professional. Another reason to avoid tablets is that if the water lost through sweating is not replaced, salt can build up in your body and cause cramps. Too much sodium in your system can also cause fluid retention—this can cause your blood pressure to rise, predisposing you to such problems as swollen legs or arteriosclerosis. Generally, a fluid/electrolyte replacement sport drink is safer than tablets.

Q Are sport drinks any better than water for employees working in high temperature environments?

A The real key is to keep yourself fully hydrated. According to a 1999 release from the Mayo Health Foundation, unless you are engaging in extreme exercise, water is your best bet. Sport drinks are generally not necessary unless you are exerting yourself for 90 minutes or more (60 minutes if the activity is particularly intense or temperatures are extreme). During physical work or exercise it is recommended to replenish your fluids every 20 minutes—your body has limits in its ability to adjust to fluid loss, so don't wait to be thirsty! Humans lose about 10 cups of fluid a day in sweat, urine, exhaled air and bowel movements. What is lost must be replaced to maintain balance.

On the other hand, sport drinks really can't hurt. There is some research that shows individuals will drink more of a sport drink than water, and that in itself will help you stay adequately hydrated. Sport drinks quickly replace fluids and electrolytes that are lost in sweat; they also provide energy to working muscles. During extreme physical exertion or in very hot conditions, sport drinks are superior to water. While water is a good "thirst quencher," it is not an efficient "rehydrator" like a sport drink. This is because water can quench your thirst before you're completely rehydrated. Water also turns on the kidneys prematurely so you can lose fluid in the form of urine much more quickly than when drinking a sports drink.

The small amount of sodium in most sports drinks aids your body to hold on to the fluid you consume rather than losing it through urine and the carbohydrates they contain make it more easily absorbed than water. One caution is to avoid the high-carbohydrate drinks like soda pop—especially those in the 20% concentration range fluid carbohydrate levels exceed 6-8% they are actually more difficult for the body to absorb.

The previous information is from Lab Safety: <http://www.labsafety.com/refinfo/ezfacts/ezf222.htm>

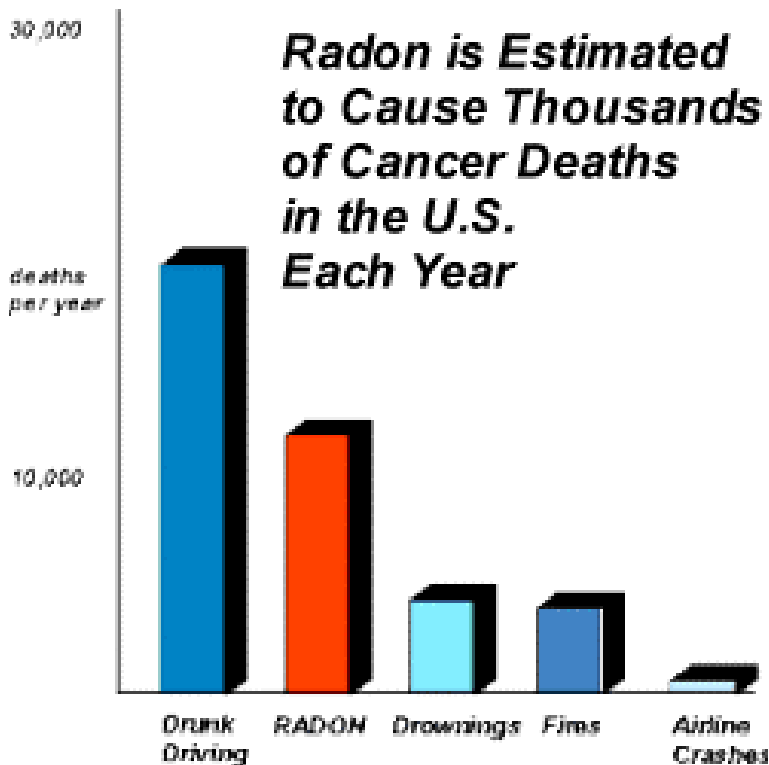
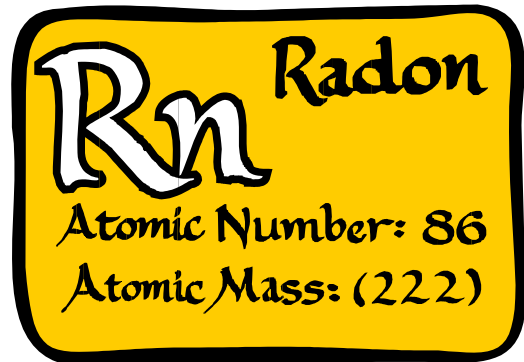
An awareness of the symptoms of heat-related illnesses and the control measures to prevent them will help keep your employees safe and your workplace running more smoothly during the summer months.

For more information or training on heat-related illnesses and prevention, contact the Public Health Office at 5-2515.

Radon Risks

Thanks to Wayne Donaldson from AFRL/PROP for the following article from the EPA website <http://www.epa.gov/iaq/radon/pubs/citguide.html>

Radon is a cancer-causing, radioactive gas. Radon is estimated to cause about 14,000 deaths per year. However, this number could range from 7,000 to 30,000 deaths per year. The numbers of deaths from other causes are taken from 1990 National Safety Council reports. Nearly 1 out of every 15 homes in the U.S. is estimated to have elevated radon levels.



Testing is inexpensive and easy - it should only take a few minutes of your time. Fix your home if your radon level is 4 picoCuries per liter (pCi/L) or higher. Radon levels less than 4 pCi/L still pose a risk, and in many cases may be easily reduced. Homes in Montgomery and Green Counties typically have 2 to 6 pCi/L per <http://www.utoledo.edu/~aprg/oris/>.

EPA recommends you test your home for radon -- it's easy and inexpensive or free.

You can fix a radon problem. There are simple ways to fix a radon problem that aren't too costly. Even very high levels can be reduced to acceptable levels.

How Does Radon Get Into Your Home? Radon is a radioactive gas. It comes from the natural decay of uranium that is found in nearly all soils. It typically moves up through the ground to the air above and into your home through cracks and other holes in the foundation. Your home traps radon inside, where it can build up. Any home may have a radon problem. This means new and old homes, well-sealed and drafty homes, and homes with or without basements.

You can get a Free Radon test kit (depending on where you live) as follows:

Montgomery County Health Department (225-4435) - call and they will mail it to you while supplies last.

Green County Combined Health (374-5600) - stop by the county building and pick one up.

All others call the Ohio Department of Health at 1-800-523-4439 (leave a message - they will call you back) - they will give you the health department number servicing your area.

**All Ohioans can also buy the test kits for \$5 at
1-800-247-2435 if you mention that you spoke with the Ohio Department of Health.**

Thanks to MSgt Laurence Stulz, 445 AW/SE for providing the following 4th of July and Firework Safety Links:

Fireworks Safety

[<http://nvo.com/bigbangcanada/fireworkssafetytips/>](http://nvo.com/bigbangcanada/fireworkssafetytips/)
[<http://www.texasfireworkssafety.com/classroom.htm](http://www.texasfireworkssafety.com/classroom.htm)
[<http://www.fireworks-safety.com>](http://www.fireworks-safety.com)
[<http://www.preventblindness.org/safety/fireworksafety.html>](http://www.preventblindness.org/safety/fireworksafety.html)
[<http://www.dominionfireworks.com/page5.html>](http://www.dominionfireworks.com/page5.html)

Fourth of July Safety

[<http://www.cyber2.com/fourthlinkf.html>](http://www.cyber2.com/fourthlinkf.html)
[<http://www.98.net/afn/links.htm>](http://www.98.net/afn/links.htm)
[<http://fireworksland.com>](http://fireworksland.com)
[<http://www.fireworksafety.com>](http://www.fireworksafety.com)

Fireworks safety for your dog [<http://www.akc.org/love/dah/july4.cfm>](http://www.akc.org/love/dah/july4.cfm)

Fireworks safety for your pets [<http://www.engelbergkristy.com/july.htm>](http://www.engelbergkristy.com/july.htm)



Environmental Tidbits



Remember that it is very important that a **“Used Oil”** label is placed not only on tanks and containers but also on any ancillary piping. Wright-Patterson’s Recycling Center does accept used oil from your home for recycling. A new oil tank has been placed at the Recycling Center.

Please direct questions regarding used oil to Nic Nicodemus - Used Oil Program Manager, Office of Environmental Management - 77152 xx274.

In regard to tracking the 2001 ECAMP findings...

The letters for the 2001 ECAMP findings were sent out on 13 Jun with a suspense of 13 Jul (responses will definitely be accepted sooner) requesting the following information for each finding:

1. Point of contact (name/office symbol/duty phone)
2. The status (open or closed)
3. The date the finding was closed or the estimated completion date the finding is scheduled to be closed
4. The Management Action (MAP), which describes how the finding is being addressed and identifies the reason(s) (root cause) the finding exists.



Please address questions regarding ECAMP to Karen Thompson at 72010 x211



REMINDER: "All base organizations are required by Executive Order 13101 to purchase printing and writing papers that contain at least 30% post-consumer recycled content paper. Office Runway, 257-6500, located in Bldg 1, Area C, sells 30% post-consumer paper at \$29.90/case (which is \$2.00 cheaper than GSA). They take orders over the phone and will deliver the paper right to your doorstep within one day.

If you have any questions, contact the base Affirmative Procurement Manager, Raymond Baker at 257-2184 x253."

ESOH Training and Opportunities

RCRA Hazardous Waste Training

Initial Training - 19 Jul, 20 Sep, 15 Nov 01
Schedule with [Shelly Baty](#) x77152 x281

Annual Refresher Training - AFRL Only
12 Jul 01, 13 Sep, 8 Nov 01
Schedule with [Mary Shelly](#) x59000

Organizations other than AFRL - Refresher Training:
16 Aug, 18 Oct, 20 Dec 01
Schedule with [Shelly Baty](#) x77152 x281



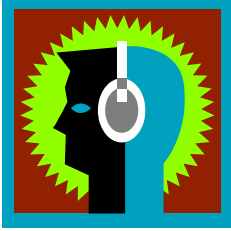
Environmental Compliance, Assessment and Management Program (ECAMP) Training - 5-8 Nov 01

This satellite course will teach you the objectives, principles, and mechanics of an environmental audit/assessment. The course (ENV 020) is taught by AFIT and is required for those wishing to participate on an ECAMP team. For more information on the course visit [AFIT's Website](#).

Environmental Management will be facilitating a satellite downlink of the course. You must sign up for the course through your Training Focal Point (TFP) prior to 25 Sep 01 since that is the deadline requests are due to AFIT. Also please contact the course facilitator, Karen Thompson, 88 ABW/EMO at 72010, ext. 211 if you are planning on attending.



CPR Training - required for electrical and confined space workers per 29 CFR 1910.151. The American Heart Association recommends CPR refresher training every two years and the American Red Cross recommends CPR refresher training every year. CPR training (per the American Heart Association) is **taught at the Base Hospital every Tuesday** provided that there are enough students for a class.
Contact Marcia Wilson at x79347.



ESOH Awareness Training - 11 Jul, 10 Oct 01

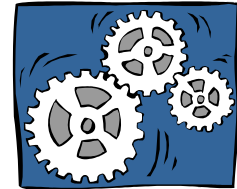
Schedule with Mary Shelly x59000

This course covers a broad range of topics and requirements that apply to all of us at Wright-Patterson. This course is highly recommended for all employees on Base, including contractors.

Operational Risk Management (ORM) Training

Schedule with Chuck Swankhaus at 43390

This Level II course teaches the skills necessary to anticipate and avoid costly and possibly injurious mistakes or delays in your program. By learning and applying tools to identify and eliminate potential land mines BEFORE they occur, your project will run more smoothly. This is NOT just a safety program.



SMOKERS...

Each cigarette you smoke takes 7 minutes off of your life. A pack-a-day habit at today's prices costs you over \$1,000 per year!

NOW IS THE TIME TO FACE YOUR FUTURE! Discover your own ability to overcome NICOTINE!

Call the Health & Wellness Center at 257-9896 and speak to Pat Kehl for information about the next 5 day "DO IT" Tobacco Cessation Program.



Public Health Training Schedule for 2001

Seating is limited, so classes will be filled based on the order people sign up. More classes will be scheduled if needed. Since these are "Train-the-Trainer" courses, only supervisors or trainers should come to this

training. If you would like training on other occupational subjects, please call Public Health at x52515 and they will assist you as best as they can.

HAZCOM Training

6 Aug, 1 Oct, 3 Dec 01

To schedule, contact SrA Gumbus or SSgt Hastings at 5-2515.

Public Health will be holding the HAZCOM Train-the-Trainer class every other month starting in April. All classes will be held in the Bldg 103 Training Room, Area B starting at 1:00.

Hazcom Training per 29 CFR 1910.1200 is required for all employees who use, handle, or may be exposed to hazardous materials upon initial assignment to that job (if not already receiving Chemical Hygiene Training per 29 CFR 1910.1450). People often ask if annual refresher training is required. Hazcom refresher training is required whenever a new chemical or hazardous process is introduced into the work area or it is evident an employee needs refresher training. Other than this, there is no "annual" requirement for Hazcom training.

Ergonomics Training

2 July, 24 Aug, 5 Nov 01

**To schedule, contact SrA Gumbus or
SSgt Hastings at 5-2515.**

All classes will be held in the classroom in Bld 103, Area B and will begin at 1:00. Please contact SrA Gumbus or SSgt Hastings at 5-2515 to schedule the day you would like to attend.



Ergonomics is a major issue in virtually all workplace environments, from sitting at a computer to loading bombs on the fighter. Because of the variety of occupations, the ergonomics class offered will be "basic ergonomics." If you would like in-depth ergonomic training that is more job specific, we are available to do that on a one to one basis.

**To send comments
on this newsletter
or if you would like
to be added /
removed from the
distribution list,
please contact
Mary Shelly
(937) 255-9000.**

